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# NONVERBAL COMMUNICATION IN PSYCHOTHERAPY

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#### **ABSTRACT**

The mental status examination is the objective portion of any comprehensive psychiatric assessment and has key diagnostic and treatment implications. This includes elements such as a patient's baseline general appearance and behavior, affect, eye contact, and psychomotor functioning. Changes in these parameters from session to session allow the psychiatrist to gather important information about the patient. In psychiatry, much emphasis is placed on not only listening to what patients communicate verbally but also observing their interactions with the environment and the psychiatrist. In a complimentary fashion, psychiatrists must be aware of their own nonverbal behaviors and communication, as these can serve to either facilitate or hinder the patientphysician interaction. In this article, clinical vignettes will be used to illustrate various aspects of nonverbal communication that may occur within the setting of psychotherapy. Being aware of these unspoken subtleties can offer a psychiatrist valuable information that a patient may be unwilling or unable to put into words.



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#### INTRODUCTION

An estimated 60 to 65 percent of interpersonal communication is conveyed via nonverbal behaviors.1 Unfortunately, the emphasis in the clinical setting is disproportionately placed on verbal interactions.<sup>2</sup> Many nonverbal behaviors are unconscious and may represent a more accurate depiction of a patient's attitude and emotional state.2 They can belie a patient's anxiety regarding a specific topic discussed in therapy despite verbal assertions that the subject is inconsequential and not causing distress. It is critically important to consider a patient's nonverbal behaviors when assessing risk of harm to self or others. Alternatively, nonverbal behaviors may shed light on feelings of transference and counter-transference between patient and physician.

#### **NONVERBAL COMMUNICATION**

All nonverbal behavior must be interpreted within context. Knapp and Hall specifically address the issue of physicians' limited training in nonverbal communication.3 "Clearly, physicians can use this kind of knowledge. However, it is very important that physicians not only notice cues but that they draw appropriate interpretations from them."3 Nonverbal cues cannot be interpreted in a vacuum. No single behavior or gesture means the exact same thing in every conceivable context. For example, consider the hand gesture of extending only the index and middle fingers, spread apart in a V shape, while closing the rest of the hand. This might signify a number, two. In the United States if the palm is facing the individual using this gesture it signifies "victory" and if the palm is facing others it is identified as a symbol meaning "peace." In England, however, making the American "V for victory" sign is an insult with sexual connotations. In London, displaying the American peace sign instead represents victory.

There are multiple layers of context to consider. First, a psychiatrist should take into

consideration the environment in which an interaction is taking place. During an initial interview, patients may seem anxious about talking to a complete stranger about their problems or appear distracted as they take in the novelty of the psychotherapist's office. Crossing one's arms across the chest might mean the patient is not open to pursuing a particular avenue of exploration; however, in another case it might simply be indicative of the office temperature being too cold for comfort. Second, psychiatrists must consider a particular individual's typical presentation and usual mental status examination. Some individuals are naturally more expressive in terms of general animation, gestures, and affect. Others may carefully control and modulate their feelings. Certain cultures have different rules as to when it is acceptable to express a particular emotion and to what degree. Third, it is helpful to look at nonverbal behaviors globally rather than center on the minutiae. Instead of focusing on any one single gesture, it is more effective and useful to accurately interpret several behaviors that occur simultaneously. Finally, a psychiatrist must reflect on the interaction occurring between patient and physician in real time. The psychiatrist's own nonverbal actions may in turn affect a patient's behavior.

#### **CLINICAL VIGNETTE**

Mrs. Jones was a 44-year-old married woman who initially presented with a chief concern of worsening anxiety for the past several months.

Mrs. Jones reported being bothered by increasing worry, poor sleep, feelings of fatigue, and a decreased ability to focus. Her symptoms were especially intense in her occupational setting as a receptionist in a busy medical office. She decided to seek treatment after an argument with a patient with whom she was "really snippy," which resulted in one of the female physicians in the practice pulling her

aside to ask if everything was okay. Mrs. Jones was genuinely surprised when this doctor mentioned that she seemed "irritable" lately. When she thought about this comment later, she realized she had increased her smoking from a half pack daily to nearly a full pack per day. She reported having "always been a worrier" but had never before received mental health services. Her only experience with psychotropic medication was zolpidem (Ambien®) prescribed by her primary care physician after she complained of insomnia earlier in the year. She acknowledged feeling uncomfortable about seeing a psychiatrist because "you might think I'm crazy." During the initial consultation, Mrs. Jones's eye contact was fleeting and her palm was sweaty upon shaking hands with the psychiatrist. She chose a seat on the couch, the furthest position away from the psychiatrist, and pulled a pillow onto her lap. Her speech was soft and somewhat rapid. She appeared nervous, fidgety, and kept rubbing the back of her neck. When this repeated gesture was brought to her attention by the psychiatrist, she reported frequent headaches and neck pain.

## PRACTICE POINT: THE MENTAL STATUS EXAMINATION

Establishing baseline mental status. The initial mental status exam can provide valuable information about a patient and begins when a new patient is first seen in the waiting area. However, it takes time to accurately identify a particular individual's baseline. A first impression may be influenced by anxiety about coming to see the psychiatrist. What is the patient's posture? Is the patient nervous and fidgeting or appearing calm and relaxed? Does the patient appear depressed or easily startled, for example when a door slams shut? Is there a gait disturbance as the patient walks into the office?

Once in the interview room, there are a number of observable, nonverbal behaviors that produce information about the patient. One

TABLE 1. Examples of nonverbal behavior as diagnostic criteria	
Autistic disorder	Marked impairment in eye-to-eye gaze, facial expression, and body postures; gestures stereotyped; repetitive motor mannerisms
Attention deficit hyperactivity disorder	Does not appear to listen when spoken to, easily distractible, fidgeting, inability to remain seated
Substance intoxication or withdrawal states	Conjunctival injection with cannabis intoxication; miosis in opiate intoxication; and lacrimation, rhinorrhea, and yawning in opiate withdrawal
Schizophrenia	Flat affect, poor eye contact, avolition (negative symptoms), disheveled appearance, unpredictable agitation, rigid or bizarre postures (grossly disorganized or catatonic behaviors)
Major depressive disorder	Psychomotor agitation or retardation restricted or blunted, dysphoric affect, tearfulness
Posttraumatic stress disorder	Hypervigilance, exaggerated startle response, restricted range of affect

Source: American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision.* Washington, DC: American Psychiatric Press Inc.:2000.

should take notice of where the patient chooses to sit, posture during the interview, whether eye contact is maintained, and how the patient reacts to interpretations beyond simple verbal acknowledgment. Over time, the psychiatrist becomes attuned to the patient's baseline appearance, attitude, and behavior. Some of these nonverbal behaviors may point the psychiatrist in the direction of a specific diagnosis (Table 1).4

### PRINCIPLES OF NONVERBAL BEHAVIOR

Shea<sup>5</sup> characterizes the basic principles of nonverbal behavior into three areas: proxemics, kinesics, and paralanguage. Proxemics refers to how

interpersonal relationships and behavior are changed by the distance between two people. Kinesics includes how the body moves. This includes such elements as posture, body movements, gestures, eye behaviors, and facial expressions. Each refers to elements of the mental status exam in a different guise (e.g., general appearance and behavior, psychomotor functioning, eye contact, and affect). Paralanguage includes other mental status elements, such as prosody, rate, rhythm, volume, tone, and pitch of speech.5

Knapp and Hall<sup>4</sup> conceptualize these basic elements similarly, referring to the communication environment, which includes both physical and spatial elements, the individual's physical characteristics, and body movement and position. They further subdivide the latter element into gestures, posture, touching behaviors, facial expressions, eye behavior and vocal behavior. Touching behaviors include simple "nervous habits," including playing with a tissue or objects on the desk in session or clasping the hands together, as well as behaviors designed to decrease anxiety or serve as self-soothing methods, including rubbing the forehead, crossing the arms across the body, or running the palms over the lap.

In the clinical vignette, Mrs. Jones's behavior clearly indicated she was anxious about the appointment. She put the maximum amount of physical distance available between herself and the psychiatrist. Furthermore, she "hid" behind the pillow as a sort of protective barrier and had a difficult time sustaining eye contact.

It would be prudent to see if behaviors such as these illustrated in the case vignette change after the patient becomes more comfortable with the psychiatrist. If they do not dissipate over time, a psychiatrist might conclude that this level of anxiety is actually the patient's baseline mental state. Commenting on Mrs. Jones's neck-rubbing behavior elicited a report of muscle tension and further validated the psychiatrist's tentative assessment.

#### CLINICAL VIGNETTE CONTINUED

Mrs. Jones was initially unable to pinpoint a reason for her worsening anxiety. "I don't know why I'm so keyed up," she replied when asked. When the psychiatrist inquired about major life changes or stressors, she was insistent there was nothing in particular that was troubling her and crossed her arms over her chest, zipping up her cardigan in the process. Mrs. Jones described her childhood as "normal" and "good" and denied any history of abuse, trauma, or neglect. She reported a relatively stable marriage for the past 24 years and said there

was no increase in marital conflict recently. She described her husband as "supportive" and had no complaints about their relationship, yet made diminished eye contact when her marriage was the topic of discussion. She had two children, a 17-year-old son preparing to graduate from high school in a matter of months and a 24-year-old daughter who was enrolled in graduate school several states away. Mrs. Jones reported close and nonconflicted relationships with both of them. The psychiatrist noted that nearly every time her son came up in discussion, Mrs. Jones would take her cigarette lighter out of her pocket and twirl it around in her hand. Further exploration revealed he was planning on enlisting in the military after graduation and Mrs. Jones was not supportive of this decision.

## PRACTICE POINT: A CHANGING MENTAL STATUS EXAMINATION

When aspects of the mental status exam change, it is important that the psychiatrist explore this further in order to determine the significance of the shift from baseline. A departure from a patient's normal baseline appearance and behavior should always be noted. Precisely because nonverbal communication is often unconscious, these behaviors might be a more accurate reflection of a patient's internal emotional state.<sup>2</sup> Changes in nonverbal behavior that occur during the therapeutic interaction may alert the psychiatrist that a patient is not yet able to tolerate discussion of a particular issue.

In the case of Mrs. Jones, there was a strong nonverbal reaction whenever her marital relationship was mentioned. Mrs. Jones's diminished eye contact, the crossing of her arms, and the zipping up of her sweater literally serve to close herself off from the psychiatrist. Despite denying any concerns about her marriage, the psychiatrist concluded from her behavior that there was something threatening to the patient about that topic. Perhaps

Mrs. Jones would be more open to discussing this at a future time. In other instances, nonverbal behavior may help direct the psychiatrist to an issue needing further exploration even if the patient states the topic involved is unimportant or irrelevant.

In this vignette, the touching of the cigarette lighter was an indicator of discomfort, as smoking is one of the ways Mrs. Jones attempted to cope with her anxiety.

#### MOOD VERSUS AFFECT: CONGRUENT OR INCONGRUENT

Another aspect of the mental status examination involves comparison of a patient's stated mood versus his or her perceivable affect. If a patient states he or she feels "depressed" and appears sad, tearful, and uninterested in maintaining personal grooming and demonstrates psychomotor retardation, the psychiatrist would conclude the affect is congruent with the stated mood. Conversely, if an individual states he feels "depressed" yet appears euthymic, smiling, laughing, and enthusiastically interactive, the conclusion would be that the affect is incongruent with the stated mood. This does not necessarily mean the patient in question is not feeling depressed, but the psychiatrist would take note of the inconsistency and explore further through interview and continued observation of the patient.

Nonverbal behavior is very similar. Sometimes the facial expression, appearance, eye contact and body movements match the verbal expression of the patient. On the other hand, the nonverbal behavior may send a contrary, or incongruent, message relative to a patient's verbal communication. These inconsistencies may represent the patient's unconscious feelings or unstated thoughts and require further exploration in order to conduct effective psychotherapy. The inappropriate or blunted affect and disorganized behavior often seen in patients with schizophrenia make it challenging for the psychiatrist to

accurately understand the patient's internal emotional experience.

Nonverbal behaviors can be of critical importance in identifying and evaluating the risk of dangerousness to self or others. A patient who denies any history of self-injurious behavior yet has multiple linear scars on his or her forearms would be considered at elevated risk for future self-harm or accidental completed suicide. A patient who is upset about being involuntarily admitted to the hospital may exhibit his or her anger through nonverbal behavior. He or she may raise the volume of the voice, clench the jaw, and tighten the hands into fists. The psychiatrist may recognize these as signs of agitation and take pre-emptive action to prevent the situation from escalating. If the patient also has dilated pupils and appears diaphoretic this may further warn the psychiatrist of an increased risk for impulsive or violent behavior.

#### CLINICAL VIGNETTE CONTINUED

Over the course of psychotherapy, Mrs. Jones became more comfortable in sessions. Her eye contact improved and her fidgeting decreased. She began sitting on the end of the couch closer to the psychiatrist. During one appointment, Mrs. Jones spontaneously shared more about her employment situation. She had worked in the same medical office for many years. It was a busy practice and she had greatly enjoyed her job until the last several months. When describing her work, she appeared happy and excited until she stated that a new male physician had recently joined the staff. At this point, Mrs. Jones's facial expression transformed and she appeared subdued. The psychiatrist also noted she reverted to her anxious mannerisms seen at initial presentation, so the psychiatrist invited Mrs. Jones to discuss whatever she was comfortable sharing.

Mrs. Jones indicated the new physician had been flirting with her and it was making her

<b>TABLE 2.</b> Universal facial expressions of emotion	
Surprise	Jaw drops, opening the mouth without tension; eyes open widely; brows are raised, high and curved; forehead wrinkles horizontally throughout
Fear	Lips tense, stretch and draw back; eyes open with lower lid tense and upper lid raised; brows are raised, drawn close together; forehead wrinkles horizontally in the center only
Disgust	Upper lip raises and nose wrinkles; lower eyelid moves upward; brows are lowered
Anger	Lips tightly closed; eyelids tense; brows are lowered and drawn close together; wrinkling appears vertically between the brows
Happiness	Corners of the lips draw upward and nasolabial folds become prominent; lower eyelid raises and wrinkles appear around the eyes
Sadness	Lips tremble or corners draw downward; eyes may tear; inner brows are raised and often drawn together

Source: Ekman P, Friesen WV. *Unmasking the Face*. Englewood Cliffs, NJ: Prentice-Hall Inc.; 1978.

uncomfortable. In one case, the physician gave her an unsolicited neck massage. She reported feeling "frozen and trapped" at the time. Mrs. Jones did not reciprocate this physician's feelings but felt unsure how to deal with the unwanted attention without causing a problem in the office. Once, she told the physician she was not interested, but he joked about it and did not appear to take her concerns seriously. When sharing this information with the psychiatrist, Mrs. Jones's voice became soft and meek. Mrs. Jones put her hand to her eyebrow, covering one side of her face, looked at the floor and became uncharacteristically silent. The psychiatrist inquired if she somehow felt ashamed about the interactions with this physician. Mrs. Jones immediately started to cry and admitted she had never disclosed the flirtation to anyone else. She felt very guilty for not telling her husband about the interactions at work. In addition, Mrs. Jones felt she must have done something to "lead him

on" as the physician was continuing this behavior despite her noninterest. She reported that the issues at her job reminded her of an incident in her adolescence where she had been sexually assaulted by a boyfriend after attempting to break off the relationship. "It was my fault then, and it's my fault now."

## PRACTICE POINT: SIGNIFICANT INFORMATION REVEALED THROUGH NONVERBAL BEHAVIORS

Nonverbal behaviors, in particular facial expressions and paralanguage, can reveal significant information pertaining to a patient's affective state.

**Facial expression.** Facial expression is one of the more straightforward nonverbal behaviors to identify and interpret, and is also one of the most studied elements of nonverbal communication. Ekman and Friesen<sup>6</sup> identified several facial expressions of emotion that are relatively similar and easily identifiable across cultures. The six

classic emotions that are recognized and understood by members of most cultures are surprise, fear, disgust, anger, happiness, and sadness.7 Ekman and Friesen later developed a facial atlas that catalogs every facial muscle and its role in each of these emotional states (Table 2). This information is the basis of an encoding system used to classify facial expressions for research purposes.8 In clinical use, being able to recognize and differentiate between similar expressions (e.g., fear and sadness or disgust and anger) is important when treating alexithymic patients who have difficulty articulating their feeling state. The study of facial expression has been further refined in order to detect emotional "leakage" via very subtle "microexpressions" or fleeting, involuntary, nonverbal facial indicators of an emotion that someone attempts to conceal by voluntarily displaying another affective state.8

**Paralanguage.** Paralanguage is also revealing. Just as there are facial expressions that appear to be universally understood, vocally expressed emotions are also readily identifiable by members of different cultures.9 In fact, an individual often can differentiate the appropriate emotional state of a speaker when the words spoken have no contextual relationship to the emotion being expressed, even if words are spoken in a foreign language.<sup>10</sup> In Pell's study, 10 native Argentinean Spanishspeaking (and monolingual) listeners accurately identified the emotion of joy 89 percent of the time and the feeling of anger 81 percent of the time when spoken in "pseudoutterances," which are nonsense words modeled after Spanish linguistic properties that removed any content or contextual clues with which to identify the emotion.<sup>10</sup> Furthermore, the same listeners also were fairly successful identifying emotions of speakers talking in other languages. In fact, 77 percent of the listeners correctly identified the feeling of anger when the words were spoken in German, 74 percent

accurately identified sadness spoken in English, and 77 percent rightly identified sadness when spoken in Arabic.<sup>10</sup>

A psychiatrist can rely on both visual (i.e., facial expressions) and auditory (i.e., paralanguage) output to discern a patient's emotional state. However, there are occasions where one or the other variable is missing from the equation. For example, the nonverbal patient will still be able to express a feeling state via facial expression or hand gestures. There are also patient-physician interactions lacking the benefit of being able to see the patient. If the patient states he is not angry during a telephone conversation with the psychiatrist, but his voice rises in volume and takes on a harsher tone, the physician may reasonably infer that the patient is angry about something but is either unable or unwilling to recognize his emotional state or is reluctant to share his true feelings at that point in time.

In the vignette, Mrs. Jones displayed a significant and rapid shift in facial expression from happy to sad when the topic of the new male physician in her office arose. The psychiatrist picked up on this as well as the return of her fidgeting and gently encouraged Mrs. Jones to share what was on her mind. Mrs. Jones then appeared ashamed and embarrassed, indicated by her downcast eyes and by covering her face, yet she was unable to freely talk about this emotional state as evidenced by her silence. Again the psychiatrist recognized the change in her nonverbal behavior and made an interpretation regarding the patient's visible affect. This facilitated Mrs. Jones's sharing more details about the situation at work as well as a traumatic past event that likely had considerable influence on how she felt about and navigated the difficult position she faced.

The nonverbal behavior of the psychiatrist and the value of videotapes and process notes. In the case vignette of Mrs. Jones, when the treating psychiatrist reviewed details of the previous appointment

by referring to process notes and a videotape of that session, she concluded the psychotherapy had stalled. When the topic of previous sexual abuse was mentioned by Mrs. Jones, the treating psychiatrist observed that she herself appeared uncomfortable and subtly leaned back in the chair and crossed her own legs and arms. Immediately after this, Mrs. Jones had abruptly changed the subject, stating "But you don't want to hear about all that."

Reflecting on her own behavior, the treating psychiatrist realized that she did not comment on this and subsequently Mrs. Jones discussed more superficial topics. She noted Mrs. Jones had appeared considerably less animated and engaged in the session after the topic shifted to more mundane events.

The psychiatrist reflected on how she felt during this particular session. She realized that she had been unsure how to explore the sexual assault at that point because the patient appeared uncomfortable. She wondered if she might have been projecting her own concerns and discomfort about addressing such an anxiety-provoking topic onto Mrs. Jones. The psychiatrist realized she did not respond verbally to Mrs. Jones's comment about not wanting to hear further information about the sexual assault, but had communicated her own anxiety nonverbally. The psychiatrist had not recognized that the patient was responding to the psychiatrist's own discomfort and corresponding nonverbal behavior.

#### PRACTICE POINT: NONVERBAL BEHAVIORS OF THE PSYCHIATRIST

Nonverbal behaviors of the psychiatrist greatly impact the dialogue in psychotherapy. Just as the psychiatrist is observing the patient in the office, the patient is observing the psychiatrist. Nonverbal behavior plays a significant role in establishing the therapeutic alliance in any patient-physician interaction. In psychotherapy settings, it is critically important to the formation

of rapport between the patient and psychiatrist. Rapport is the essential groundwork that must be laid between both parties in order for them to continue building a strong therapeutic alliance in which to work together toward mutual goals. Rapport is influenced by three nonverbal behavior elements: attentiveness, positivity-negativity, and coordination.<sup>11</sup>

**Attentiveness.** Attentiveness refers to each individual's capability for focusing attention on the interaction occurring between the patient and psychiatrist in the here and now.<sup>11</sup> Clearly if a patient feels the psychiatrist is distracted or uninterested in what he or she is saying, this undermines rapport. The psychiatrist can display interest in the patient by giving undivided attention to the conversation at hand and encourage further communication with nonverbal behaviors such as making eye contact and nodding.

Positivity-negativity. Positivity-negativity refers to how interacting individuals are responding to each another. Are they enjoying one another's company and showing this through nonverbal behaviors such as smiling, laughing, leaning forward in their chairs, and adopting open postures? Or are they uncomfortable with one another and displaying indifference or hostility and creating physical distance or barriers between one another?

Coordination. Coordination refers to the similarity in the nonverbal behavior of the patient and psychiatrist. This can be conceptualized by thinking about how one person mirrors another's behavior. Examples include making eye contact at the same moment, returning a smile, or adopting and changing position in tandem with the patient.

In the clinical vignette, the psychiatrist unconsciously displayed signals of discomfort that Mrs. Jones identified even though no words to that effect were exchanged. While the patient's reading of the psychiatrist's nonverbal

communication may have been conscious or unconscious, it likely contributed to the patient's comment regarding the psychiatrist not wanting to hear any more about the past sexual assault. Furthermore, the psychiatrist missed an empathic opportunity to regroup and reassure the patient that she was open to listening to whatever Mrs. Jones wished to share. Through careful review of the process notes and videotape, the treating psychiatrist became aware of this and was able to utilize the information in subsequent sessions, facilitating the patient's exploration of the past abuse at the next appropriate opportunity.

#### **CONCLUSION**

Nonverbal behavior contributes significantly to all interpersonal communication but unfortunately is often only a peripheral area of focus in the psychotherapeutic setting. While listening carefully to the patient is obviously a fundamental aspect of psychotherapy, there may be additional diagnostic and therapeutic information to be gained from watching the nonverbal behaviors expressed by a patient. Nonverbal signals can alert a psychiatrist to important affective states that may otherwise be overlooked or denied. They can also

help identify how comfortable a patient is with a given topic of discussion. This information can then be used to guide the psychotherapy in a manner that is tolerable and therapeutic for the patient. Being aware of our own nonverbal behavior and how it may impact interactions with patients is central to improving our ability to establish rapport and maintain a strong therapeutic alliance.

#### REFERENCES

- Burgoon JK, Guerrero LK, Floyd K.
   Nonverbal Communication.
   Boston, MA: Allyn and Bacon;
   2009.
- 2. Philippot P, Feldman R, Coats E.
  The role of nonverbal behavior in clinical settings. In: Philippot P,
  Feldman R, Coats E (eds).
  Nonverbal Behavior in Clinical
  Settings. New York, NY: Oxford
  University Press; 2003:3–13.
- 3. Knapp ML, Hall JA. Nonverbal Communication in Human Interaction, Seventh Edition. Wadsworth, Canada: Cengage Learning; 2010.
- 4. American Psychiatric Association.

  Diagnostic and Statistical

  Manual of Mental Disorders,

  Fourth Edition, Text Revision.

  Washington, DC: American

  Psychiatric Press Inc.; 2000.

- Shea SC. Psychiatric
   Interviewing: The Art of
   Understanding, Second Edition.
   Philadelphia, PA: Sanders; 1998.
- 6. Ekman P, Friesen WV. Constants across cultures in the face and emotion. *J Personal Soc Psychol*. 1971;17(2):124–129.
- 7. Ekman P, Friesen WV. *Unmasking* the Face. Englewood Cliffs, NJ: Prentice-Hall Inc.; 1975.
- 8. FACS vs. F.A.C.E. The differences between FACS and F.A.C.E. training http://www.paulekman.com/produc ts/facs-vs-f-a-c-e/ Accessed April 15, 2010.
- 9. Scherer KR, Banse R, Walkbott H. Emotional interferences from vocal expression correlate across languages and cultures. *J Cross-Cultur Psychol.* 2001;32:76–92.
- Pell MD, Monetta L, Paulmann S, Kotz S. Recognizing emotions in a foreign language. J Nonverb Behav. 2009;33:107–120.
- 11. Tickle-Degnen L, Gavett E.
  Changes in nonverbal behavior
  during the development of
  therapeutic relationships. In
  Philippot P, Feldman R, Coats E
  (eds). Nonverbal Behavior in
  Clinical Settings. New York, NY:
  Oxford University Press;
  2003:75–110. ●